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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,848	10/22/2003	Edward Tygard	1054	4220
27649	7590	02/19/2008		
MICHAEL TOBIAS			EXAMINER	
1629 K ST NW			KEENAN, JAMES W	
SUITE 300				
WASHINGTON, DC 20006			ART UNIT	PAPER NUMBER
			3652	
			MAIL DATE	DELIVERY MODE
			02/19/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/689,848

**Applicant(s)**

TYGARD, EDWARD

**Examiner**

James Keenan

**Art Unit**

3652

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 62-64, 75, 76, 83, 85 and 90-103 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 83 is/are allowed.
- 6) ☒ Claim(s) 62, 63, 85, 90-93 and 95-103 is/are rejected.
- 7) ☒ Claim(s) 64, 75, 76 and 94 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/31/07 has been entered.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 62, 63, 85, 90, 91, 93, and 95-102 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tygard (US 5,516,255) in view of Pierre (US 3,044,819), both previously cited.

As noted in previous Office actions, Tygard shows a clamping apparatus for grasping a rectangular layer of articles on a pallet from four sides and lifting the layer, comprising four clamping arms mounted on a frame for pivoting about a single degree of freedom to grasp the rectangular load from four sides, wherein each clamping arm includes a contact portion for contacting the load, a lever portion pivotally connected to the frame and the contact portion, and a drive mechanism for pivoting the clamping arm with respect to the frame.

Although Tygard shows the clamping arms able to adjust to different sized loads (see figs. 3B, 3C), it does not utilize a four-bar linkage which controls an angle of the contact portion with respect to the vertical as the clamping arm pivots.

Pierre shows a clamping apparatus comprising frame 17 to which four clamping arms are pivotally mounted, each arm including a contact portion 1-4 for contacting a side of the load to be lifted, wherein each of the clamping arms defines a parallel four bar linkage comprised of a lever portion 10, 12, 14, 16 and a control rod 9, 11, 13, 15 both respectively pivoted to the frame and the contact portion, so that the contact portions of the clamping arms maintain a constant angle with respect to vertical as the clamping arms are pivoted relative to the frame by the drive mechanisms. This allows the arms to pick up layers of articles of varying size (see col. 1, lines 27-39, col. 3, lines 43-48).

It would have been obvious for one of ordinary skill in the art at the time of the invention to have modified the apparatus of Tygard such that it utilized a four-bar linkage to control the angle of the contact portion of each clamping arm, as shown by Pierre, as this would be a more effective means of maintaining the arms at a constant angle and thus enabling the clamping arms to properly pick up loads of varying size.

Re claims 85, 90, and 91, Tygard teaches the method steps as claimed.

Re claim 93, each contact portion has "a substantially planar surface ... extending between an upper and a lower edge" (emphasis added) thereof, as broadly claimed.

Re claim 95, based on the size of the apparatus, the contact portions of the arms are inherently considered "capable of being spaced from each other by at least 28 inches", as broadly and functionally claimed.

Similarly, re claims 96-102, the separation distance between the contact portions can clearly change by the various dimensions without the angle of the contact portion with respect to vertical changing by more than the various angles.

4. Claims 92 and 103 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tygard in view of Pierre, as applied to claims 62 and 90 above, and further in view of Guignard et al (US 2,348,899, previously cited).

Re claim 103, Tygard as modified does not show the angle of the contact portion to be adjusted relative to vertical by utilizing an adjustable length portion of the four bar linkage.

Guignard, as noted in a previous Office action, shows a lift arm comprising parallel four bar linkage system 25-28 for maintaining load handling implement 42 at a constant angle with respect to vertical and which also includes an adjustable length rod in the fig. 4 embodiment (p. 3, 2<sup>nd</sup> col., lines 34-55) which changes the angle of the implement relative to the arm by adjusting the length of one of the link elements of the four bar linkage.

It would have been obvious for one of ordinary skill in the art at the time of the invention to have further modified the apparatus of Tygard by adding a tilt mechanism for the contact portion of the clamping arms, as shown by Guignard, as this would be a

desirable feature for improved pick up and depositing of heavy but fragile goods (Guignard, p. 3, 1<sup>st</sup> col., lines 5-10).

Re claim 92, to have set the contact portions such that they contacted the load at a downward slope of 2-6 degrees with respect to the side of the load would have been an obvious design expediency based on the characteristics of the load to be handled.

5. Applicant's arguments with respect to claims 62, 63, 85, 90-93, and 95-103 have been considered but are moot in view of the new ground(s) of rejection.

6. The declaration under 37 CFR 1.132 filed 10/31/07 is insufficient to overcome the rejection of claims 62, 63, 85, 90-93, and 95-102 based upon Tygard in view of Kawamura, as set forth in the last Office action (nor does it overcome the rejection of these claims based upon Tygard in view of Pierre as set forth in the present Office action) because: it still fails to sufficiently provide a nexus between the invention and the individual claims of the application. While the affidavit does go into more details than the previous affidavit concerning the structure of the invention, it still fails to indicate exactly what elements the invention as sold consisted of as compared to the individual claims set forth in the application. Thus, there is no showing that the objective evidence of nonobviousness is commensurate in scope with the claims, especially since there are several independent claims and multiple dependent claims. It is also noted that while the affidavit focuses on the soft drink, beer, and grocery industries, the claims are not so limiting. Therefore, the commercial success could be attributed to factors such as a lack

of appreciation for the marketability of such a device in these particular industries rather than the lack of the technical knowledge necessary to construct the device.

Furthermore, while the improved sales figures are reasonably impressive, they are not considered overly persuasive, and could be attributed to other factors such as incentives or other marketing strategies frequently given to new products, or simply just the "newness" factor of a product which generally results in increased sales, especially since sales have shown only modest gains since the initial introduction of the new product in 2003. In fact, the percentage increase in sales of the old product from 2000-2002 is actually greater than the percentage increase in sales of the new product from 2003-2006. See MPEP § 716.03.

The declaration also states that the claimed subject matter solved a problem that was long standing in the art. However, there is no showing that others of ordinary skill in the art were working on the problem and if so, for how long. While the affidavit gives a couple of examples, it fails to show persistent efforts which failed. Furthermore, the examples given relate to specific industries, which is beyond the scope of the claims. Finally, while applicant's statement that he has no way of knowing what every competitor was doing to solve the problem is certainly understandable given the nature of the business, it is at the same time an indication of the degree of difficulty in sufficiently establishing a showing of long felt need and failure of others. See MPEP § 716.04.

In view of the foregoing, when all of the evidence is considered, the totality of the rebuttal evidence of nonobviousness fails to outweigh the evidence of obviousness.

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7. Claim 83 is allowed.

8. Claims 64, 75, 76, and 94 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Keenan whose telephone number is 571-272-6925. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saul Rodriguez can be reached on 571-272-7097. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/James Keenan/  
Primary Examiner  
Art Unit 3652

jwk  
2/14/08